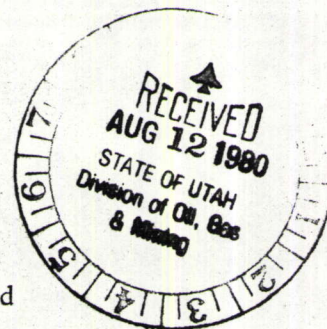


Date 8-11-80

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116



MINING AND RECLAMATION PLAN

(Other forms may be used in lieu of MR 2, provided they contain the same information)

1. Name of Applicant or Company AU Associates
2. Proposed type of operation Open pit
3. (a) Prior Land Use(s) some Grazing  
(b) Current Land Use(s) Grazing, Mining  
(c) Possible or Prospective Future Land Use(s) Grazing, Mining
4. What vegetation exists on the land proposed to be affected Sagebrush,  
and miscellaneous  
(a) Types and Estimated Percent cover or density: 10% or less
5. What is the range pH of soil before mining? 7.4-8.4 pH  
Name of Person or Agency and method of determining pH Noble Metals
6. Site elevation above sea level 6,213 Ft.
7. In case of coal, oil shale, and bituminous sandstone:  
Principal seam(s) and thickness(es) N/A
8. Estimated duration of mining operations 125 yrs.
9. Has overburden, waste or rejected materials been classified as acid or alkali producing? ( ) Yes (x) No  
Does the above material being moved have any other characteristics affecting revegetation? No
10. Will any underground workings or aquifers be encountered? ( ) Yes (x) No  
Describe not anticipated  
Is there an active discharge of water from abandoned deep mines on or crossing the land affected? ( ) Yes (x) No If yes, describe the quality of water being discharged. \_\_\_\_\_



11. Describe specifically a detailed procedure for:

- (a) The mining sequence
- (b) The procedure for constructing and maintaining access roads, to include a typical cross-section and a profile of the proposed road grades.
- (c) The procedure for site preparation including removing trees and brush.
- (d) The method for removing and stockpiling topsoil or disturbed materials.
- (e) The method for the placement or containment of all disturbed materials, to include the method for handling of all acid or alkali-producing and toxic material.
- (f) A procedure for final stabilization of disturbed materials.

GRADING AND REGRADING

Specifically describe:

- (a) Typical cross-section of regrading.
- (b) The method of spreading topsoil or upper horizon material on the regraded area and indicate the approximate thickness of the final surfacing material.
- (c) What type of soil treatment will be utilized.
- (d) The method of drainage control for the final regraded area.
- (e) Maximum grading slope.

TESTING

1. Describe method for testing stability of reclamation fill material.

Testing will be accomplished per BLM recommendations

Describe method for the testing of soil that is intended to support vegetation

Ph by BLM (further tests will be made)

2. Describe any soil treatment employed as an aid to revegetation

None anticipated

3. Describe surface preparation of areas intended to support vegetation:

Original topsoil to be stockpiled and after completion of mining, topsoil will be bulldozed over refill site and seeded with grass for the purpose of promoting grazing. Water will also be developed if possible, for the purpose of watering livestock.

REVEGETATION

1. Revegetation to be completed by:

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Operator        | <input type="checkbox"/> Hydroseeding                                  |
| <input type="checkbox"/> Soil Conservation District | <input type="checkbox"/> Aerial Seeding                                |
| <input type="checkbox"/> Private Contractor         | <input checked="" type="checkbox"/> Conventional or Rangeland Drilling |
| Name _____  | <input type="checkbox"/> Other (specify) _____                         |
| <input type="checkbox"/> Other (specify) _____      |  |

2. Will Mulch be used?

Type Not anticipated Rate/Acre \_\_\_\_\_ lbs.



3. Revegetation Plan and Schedule -

Species	Rate/ Acre	Planting Location	Facing N-S-E-W	Season to be replanted
crested wheat	2 lbs.	backfill	S	Fall
indian rice grass,	5 lbs.	" "	"	"

4. Will affected area be subject to livestock or wildlife grazing? ☒ Yes  
( ) No Will vegetation protection be needed? NOES

5. Will irrigation be used? ( ) Yes (x) No Type \_\_\_\_\_

6. Describe maintenance procedures for revegetation if needed, until surety release is granted. Replant if necessary

I, the undersigned Operator, hereby submit this to be my Reclamation and Mining Plan for the area shown on the attached map. I further understand that the operation will be conducted in accordance with the Mined Land Reclamation Act of 1975, and all rules and regulations currently in effect thereunder.

Signed Robert L. Gifford (Cavanaugh) Operator Date 8/11/80

Taken, subscribed and sworn to before me the undersigned authority in my said county, this 11th day of August, 19 80.

Notary Public Jay L. Hallowell

My Commission Expires: 8-6-83



AU Associates  
4278 Adonis Ave.  
Salt Lake City, Utah 84109

RECLAMATION

Upon final abandonment of the mine, surface debris, scrap metal, discarded wood and unusable buildings will be buried or removed from the site. Open pit area will be graded to less than  $45^{\circ}$  angles on all sides where rock formations will permit, and topsoil will be replaced to promote growth of revegetation.

Dumps, or pads and other disturbed sites will be stabilized. Stabilization will consist of rounding off the outer edges of the dumps and pads, reducing the slope of waste rock faces and regrading of drainage contours on the disturbed surfaces. The compacted surface will be scarified, seeded as recommended by BLM. The seeding will be done in the fall. At present there are no plans for the addition of a fertilizer. However should revegetation tests prove soil amendments significantly helpful in establishing vegetation, then, amendments and other proven surface techniques will be employed.

The main roads through the site will be left open to provide access to other areas.

In reference to MR Form 2, Page 2, #11, GRADING AND REGRADING, a, b, c, d, and e.



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4278 Adonis Ave.  
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MINING

The Au, Ag, and Pt ore of the Clifton Flats area, T. 8S, R. 18W, Salt Lake Meridian will be mined in a bench, open pit technique; and will be conducted in a safe, sound, technical, and prudent miner-like fashion.

Milling plant installation will commence during the third quarter of this year. Development of a 100 ton per day plant will be completed before the end of the year and ore processing will commence at that time. Expansion plans will call for the development of a 5000 ton per day plant starting within one year of first ore processing. Completion date of the 5000 TPD plant cannot be projected at this time because of price increases and equipment availability.

Ore removal from an open pit operation will start on the northern end of the properties and proceed in a southerly direction. Ore will then be transported to the on site mill for crushing and flotation concentration. The tailings will be washed and vacuum dried to approximately 5% moisture content, and after proper draining, will be used to backfill the northern end of the open pit operation. Slimes will be pumped into a settling pond and flocculated with PEO (Polyethylene Oxide) or similar chemical to bring about efficient dewatering so that slimes may be mixed with tailings as backfill material.



Topsoil, for purposes of revegetation, will be stored on either the east or west end of the property after debris have been separated. Ground stability will be monitored through an ongoing program and recommendations by BLM, the division of Oil, Gas, and Mining, will be observed.

Additional soil testing will be conducted in the future to determine if weathering, leaching, and underground rock conditions will change the soil chemistry. Information will be available from other testing sites for revegetation studies.

There are no natural water bodies in the area, except natural ephemeral drainage. Waste dumps and other surfact disturbances will be constructed to avoid blocking natural drainage paths. The below surface workings will encounter some seep water that will be impounded and pump to a series of holding tanks to supplement water usage in the closed circuit hydro-extraction systems.

Access roads on the property which presently exist will be maintained. Additional roads on the property will be constructed in a manner agreeable to BLM and to allow proper drainage.

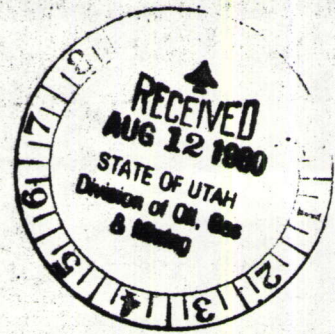
Trees and other vegetation will either be burned or buried as conditions dictate. Future site expansion will salvage topsoil in advance where possible, and store in stabilized and revegetated piles.

All acid or alkaline materials used in processing will be contained in OSHA OR MSHA approved containers, and proper controls and storage and issuance of processing chemicals will be maintained and monitored at proper intervals.

In reference to MR Form 2, Page 2, #11, a, b, c, d, e, f.



DIVISION OF OIL, GAS, AND MINING  
BOND ESTIMATE



OPERATOR: AU Associates  
MINE NAME: Rocking Chair  
LOCATION: Sec. 10, 15, 16, 21, 22, 14, 23, 28, 33, 34, T. 8S, R. 18W  
COUNTY: Tooele County, Utah  
DATE: 8-11-80

	Operation	Amount	Rate	Cost
A.	<b>CLEAN-UP</b>			
	1. Removal of structures & equipment.	200 man hrs	\$ 5./hr	\$1000.
	2. Removal of trash & debris.	100 man hrs	\$ 5./hr	\$ 500.
	3. Leveling of ancilliary facilities pads and access roads.	35 trk. hrs	\$10./hr	350.
B.	<b>REGRADING &amp; RECONTOURING</b>			
	1. Earthwork including haulage and grading of spoils, waste and overburden.			
	2. Recontouring of highwalls and excavations.	20 cat. hrs	65./hr	1300.
	3. Spreading of soil or surficial materials.	9 loader hrs	30./hr	270.
C.	<b>STABILIZATION</b>			
	1. Soil preparation, scarification, fertilization, etc.	700 lbs. seed	(ave) 3.20/lb.	2240.
	2. Seeding or planting.	36 man hrs	5./hr	180.
	3. Construction of terraces, water-bars, etc.	14 1/2 tractor hrs	30./hr	435.
D.	<b>LABOR</b>			
	1. Supervision.	15 man hrs	9.50/hr	142.5
	2. Labor exclusive of bulldozer time.	17 man hrs	5./hr	85.
E.	<b>SAFETY</b>			
	1. Erection of fences, portal coverings, etc.			
	2. Removal or neutralization of explosive or hazardous materials.	17 man hrs	5./hr	85.
		300 lbs dry chemical	(ave) 2.70/lb	810.
F.	<b>MONITORING</b>			
	1. Continuing or periodic monitoring, sampling & testing deemed necessary.	Reseeding ---	---	---
G.	<b>OTHER</b>			
	1. Inflation 13%			
			Subtotal	7,397.5
				961.67
			Total	8,359.17